

REMARKS

Claims 1-20 are pending in the application. By this Amendment, the Abstract and claims 16 and 18 are amended. Support for the claims can be found throughout the specification, including the original claims, and the drawings. Reconsideration in view of the above amendments and following remarks is respectfully requested.

The Office Action rejected claims 16-19 under 35 U.S.C. §101, as allegedly being directed to non-statutory subject matter. Independent claims 16 and 18 have been amended to address the Examiner's comments. Accordingly, the rejection is obviated and should be withdrawn.

The Office Action rejected claims 1, 6-10, and 13 under 35 U.S.C. §102(e) as being anticipated by Atkinson et al. (hereinafter "Atkinson"), U.S. Patent No. 6,381,239. The rejection is respectfully traversed.

Embodiments of the claimed invention are directed to methods for interfacing a man-machine interface (MMI) as well as a telecommunication management network (TMN) through a MMI block. In certain embodiments, the TMN agent transmits a TMN operator command, using an MMI input packet, to the MMI block, which is connected to application blocks. The MMI block then transmits the result of the TMN operator command processed by the application blocks, using an MMI output packet to the TMN agent.

Atkinson is directed to a multiple application switching platform and method. The multiple application switching platform of Atkinson is shown in Fig. 2 and includes a passive midplane 1 having a variety of printed circuit board cards connected on either side for performing switching functions. The printed circuit cards include switch cards 2,

Reply to Office Action dated September 17, 2005

database/processor cards 3, data communication cards 4, power cards 5, and expander cards 6. The midplane 1 further includes power buses 10A, 10B, message buses 9A, 9B, clock distribution lines 8A, 8B, and time division multiplexed data buses 7A, 7B.

The Office Action asserts that element 30 entitled “administration, maintenance, and billing interface as required” (shown in Figure 1 of Atkinson) corresponds to the claimed MMI block of independent claims 1, 8, and 13. The Examiner asserts that a TMN operator command is received from a TMN agent to the interface 30, referring to col. 21, lines 15-19 and 47-50. Col. 21, lines 47-50 recite that “[i]nterface 30 (e.g., external serial or Ethernet interface) is utilized to transfer administration, maintenance and billing information between the switching platform and external apparatus, such as computers, modems and craft terminals (i.e., craft terminals are typically utilized by operators to access and control the switching platforms), and provides access for database management, billing data, and maintenance to external local or remote computers.”

However, element 30 of Atkinson is similar to a hardware interface card, such a card for operation, administration, and maintenance (OAM). In other words, element 30 may merely receive operator commands from a MMI or a TMN agent. Element 30 can not perform OAM related interfacing and processing functions. The OAM related interfacing and processing functions are performed by the application processor 31 shown in Figure 1 of Atkinson.

The application processor 31 corresponds to the application blocks 13 and the MMI interface block 15 shown as part of the related art in Figs. 1-3 of the present application. The application blocks 13 can be interfaced directly to the TMN agent via the element 30 and thus process the operator commands received from the TMN agent. However, the operator

Reply to Office Action dated September 17, 2005

commands received from the MMI via the element 30 are processed through the MMI interface block 15. Thus, Atkinson is similar to the related art shown in Figs. 1-3 of the present application. In other words, the application processor 31 must have an interface for connecting with a TMN agent and an interface for connecting with the MMI through the MMI interface block 15. Moreover, because the interfaces are respectively established in the related art of Figs. 1-3 of the present application, a change in the function of one interface may require modification in the function of the other interface

Moreover, Atkinson teaches that the application processor 31 merely executes the OAM. Atkinson neither discloses nor suggests how the application processor 31 interfaces to a MMI and a TMN agent

In contrast, the claimed invention does not require a hardware interface card, such as a card for OAM. Rather, the claimed invention provides an integrated standard related to an input and output packet between the switching system and the MMI/ TMN agents, and provides a method for interfacing to the MMI and the TMN agent through one interface (the MMI interface block 45) using the standard input and output packet.

Thus, with respect to independent claim 1, Atkinson does not disclose or suggest a method of interfacing with a switching system, comprising transmitting a Telecommunication Management Network (TMN) operator command from a TMN agent to a Man-Machine Interface (MMI) block, using an MMI input packet; transmitting a result of the TMN operator command, processed by an application block, from the MMI block to the TMN agent, using an MMI output packet; transmitting an MMI operator command from an MMI to the MMI block,

Reply to Office Action dated September 17, 2005

using the MMI input packet; and transmitting a result of the MMI operator command, processed by the application block, from the MMI block to the MMI, using the MMI output packet. Further, with respect to independent claim 8, Atkinson does not disclose or suggest a method for interfacing with a switching system, comprising interfacing a Telecommunication Management Network (TMN) agent and a Man-Machine Interface (MMI) to an MMI block of the switching system through a single standardized interface; and interfacing application blocks of the switching system to the TMN agent and the MMI through the MMI block. Also, with respect to independent claim 13, Atkinson does not disclose or suggest a method for interfacing a switching system, comprising receiving a Telecommunication Management Network (TMN) operator command and Man-Machine Interface (MMI) operator command from a TMN agent and a MMI, respectively, using an MMI input packet; transmitting the received TMN operator command and the received MMI operator command from an MMI block to application blocks of the switching system; and at least one of: executing the received TMN operator command and the received MMI operator command in the application blocks and transmitting a TMN operator command execution result and an MMI operator command execution result to the MMI block, and transmitting the TMN operator command execution result and the MMI operator command execution result received from the application blocks to the TMN agent and the MMI using an MMI output packet.

Accordingly, the rejection of independent claims 1, 8, and 13 over Atkinson should be withdrawn. Dependent claims 6-7 and 9-10 are allowable over Atkinson at least for the reasons

Reply to Office Action dated September 17, 2005

discussed above with respect to independent claims 1 and 8, from which they respectively depend, as well as for their added features.

The Office Action rejected claims 2-5, 11-12, and 14-20 under 35 U.S.C. §103(a) as being unpatentable over Atkinson in view of Yamaguchi et al. (hereinafter “Yamaguchi”), U.S. Patent No. 6,094,276. The rejection is respectfully traversed.

Dependent claims 2-5, 11-12, 14-15, and 20 are allowable over Atkinson at least for the reasons discussed above with respect to independent claims 1, 8, and 13, from which they respectively depend, as well as for their added features. Yamaguchi fails to overcome the deficiencies of Atkinson, as it is merely cited as allegedly disclosing the specific data fields of the data packet. Accordingly, the rejection of claims 2-5, 11-12, 14-15, and 20 over the combination of Atkinson and Yamaguchi should be withdrawn.

Further, neither Atkinson nor Yamaguchi disclose or suggest a data structure embodied in an apparatus for communicating information from a Man-Machine Interface (MMI) to an MMI block of a switching system and from a Telecommunication Management Network (TMN) agent to the MMI block via the MMI, the data structure comprising a command number that identifies a sequence number of an input command; an input port number that identifies an input port; a job identifier that identifies the input command; and a signal identifier that indicates a signal number of the input command, as recited in independent claim 16, or a data structure embodied in an apparatus for communicating information from a Man-Machine Interface (MMI) block of a switching system to an MMI and from the MMI block to a Telecommunication Management Network (TMN) agent via the MMI, the data structure

Reply to Office Action dated September 17, 2005

comprising a data number that identifies a sequence number of output data; an input port number that identifies an input port; a job identifier that identifies an input command; a message type that identifies a type of message contained in the data structure; and a flag that identifies a message operation, as recited in independent claim 18. Accordingly, the rejection of independent claims 16 and 18 over the combination of Atkinson and Yamaguchi should be withdrawn. Dependent claims 17 and 19 are allowable over the combination of Atkinson and Yamaguchi in view of their respective dependency on independent claims 16 and 18, as well as for their respective added features.

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney at the telephone number listed below.

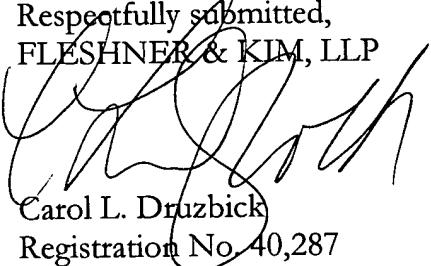
Serial No. 10/012,458

Docket No. SI-0012

Reply to Office Action dated September 17, 2005

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
FLESHNER & KIM, LLP


Carol L. Druzbick
Registration No. 40,287

P.O. Box 221200
Chantilly, Virginia 20153-1200
(703) 766-3701 CLD/kah

Date: November 17, 2005

Please direct all correspondence to Customer Number 34610